|  |
| --- |
| **3 year Mortality Data for COPD Patients Who Received Acute Non-Invasive Ventilation** |
| Daniel Bird1,2, Charlie Cho1,2, Krishna Bajee Sriram1,2, Joshua Gilmore2  |
| *1Department of Respiratory Medicine, Gold Coast University Hospital, QLD, Australia**2School of Medicine, Griffith University, QLD, Australia* |
| **Introduction/Aim:** Ward-based non-invasive ventilation (NIV) is widely used for the management of acute hypercapnic respiratory failure, most often for acute exacerbation of COPD (AECOPD). This is often accomplished by NIV-competent nurses and medical staff. Whilst previous national and international audits have reported excellent outcomes during the admission period, there is a paucity of data on the long-term outcomes of COPD patients who receive ward-based acute NIV. The aim of this study is to evaluate the medium and long-term survival of this cohort of patients.  **Methods:** We conducted a two-year retrospective audit of electronic medical records of all patients commenced on acute ward-based NIV in our institution between April 2019 to April 2021. Only patients who received NIV for acute hypercapnic respiratory failure for AECOPD were considered for the study. Mortality was assessed at time of admission and at 12, 24 and 36months.**Results:** During the study period there were 170 episodes of acute NIV provided to 131 different patients. Acute exacerbation of COPD was the NIV indication for 127 episodes and 83 different patients. The AECOPD cohort had a mean average: of 71 years; BMI of 27.5kg/m2; baseline PaCO2 of 81mmHg; and pH of 7.24. The mean duration of successful NIV was 4 days with a success rate of 95.4%. At the completion of this audit only 39.8% of the cohort were still alive. This included, an in-patient mortality of 7%, 12 month mortality of 31.4%, 24 month mortality of 43.4% and a 36 month mortality of 59%.  **Conclusion:** Our audit demonstrates that AECOPD accounts for the majority of ward-based NIV care and that an overwhelming majority of patients have a good outcome during the hospital admission. Regardless of the high success of NIV for these patients’ prognosis is limited. Further research is required to identify the causes of mortality in the patients and biomarkers that can identify the patients of highest risk of an adverse outcome.  **Grant Support:** Nothing to disclose**Key Words:**COPD, NIV, Non-invasive ventilation |